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PSYCHOLOGICAL SEX ROLE IDENTIFICATION TYPES
AND
DEPLOYMENT RELATED SATISFACTION AND RETENTION

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ABSTRACT

The present study utilized a longitudinal design to examine the effects of sex role identification on adaptation to deployment. Overall, as predicted, sex role identification was related to general satisfaction, job satisfaction, and career intent. Further, the scores on these variables varied as a function of stage of deployment with the general pattern being a decline from predeployment until the later stages of deployment with little recovery in the postdeployment phase.

Despite changes in both the Navy and in the larger society, individuals who are higher in masculine identified characteristics, whether scoring in the masculine or androgynous quadrants of the BSRI typology, adapt best to deployment.

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REVIEW OF THE LITERATURE AND PROBLEM STATEMENT

Military and civilian family members in the eighties face new and unique problems and changes within the traditional family structure. With more and more women in the work force both by choice and by financial necessity, fathers are needing and wanting to take a more active role in the care and maintenance of the home and the children. Additionally, current societal changes in attitude towards men's roles have allowed men to attain more culturally endorsed role flexibility (David & Brannon, 1976). Examples include the rise in single parent households headed by fathers, more and more men choosing to stay home with the children while their partners are in the work force, and men feeling more freedom to manifest traditional "female" behaviors such as emotional expressivity (Abbott, 1987; Osherson, 1986). In "A Demographic Profile of U.S. Navy Personnel and Families, Orthner and Nelson (1980) report:

Aside from changes in the military resulting from the volunteer force, changes throughout society have occurred in response to the demands of persons for greater freedom in selecting personal and family lifestyles. A series of cultural transformations in family forms, intimate relationships, and sex roles have been the heritage of the social changes of the 1960's and 1970's.

They summarize, "the Navy family, like American families in general, cannot be characterized in a consistent, always predictable manner." It cannot be assumed that Navy families follow a traditional family structure, nor can it be assumed that active duty Navy personnel are sex role identified solely within the stereotypical masculine typology.

Sex Role and the Military Environment:

As early as 1978, McCubbin, Marsden, Durning, and Hunter, were calling for a re-evaluation of the traditional assumptions underlying family policy in the military:

The institutions of marriage and the family, based on their traditional, strictly defined sex roles, are being critically examined by growing numbers of women and men alike.

They further asserted:

Stereotyped, traditional, and inflexible sex roles are gradually becoming modified, and the effects of these changes within both the family unit and the entire society [including the military] are quite likely to be substantial. (McCubbin, Marsden, Durning, & Hunter, 1978)

Research on sex role identification in the military has focused primarily on the wives of servicemen (Dobrofsky, 1977; Hunter, 1977; Hunter and Nice, 1978; McCubbin, 1977; Snyder, 1978; Thomas & Durning, 1977; Webster, Hunter & Palermo, 1977; Worthington, 1977). Patterson and McCubbin (1984) recently examined "the association between gender-role orientation and specific coping behaviors in mitigating stress". They found that androgyny (that is the self perception of possessing a high degree of both masculine and feminine characteristics) was a significant psychological factor for wives in the development of effective coping strategies.

Though sex role identification has been widely utilized as a descriptive typology for women, there has been little research utilizing this typology with the male populations.

The changing attitudes and expectations of today's Navy families are reflected not only in the changing roles of wives and mothers, but also in the evolving roles of husbands and fathers. These changes will necessarily have their impact on the retention and satisfaction concerns of the active duty male. As men change, their goals will change. Derr, et al (1978) report:

Research on attrition reveals that the younger military careerists no longer view their work as the focus of their lives. Instead, young careerists identify their family and their opportunity for self-improvement as their primary values in life.

Archer and Cauthorne note in their 1986 study on "An Investigation of Deployment Related Factors on Performance and Psychosocial Adjustment" that a key factor for predicting commitment to the Navy is emotional expressiveness within the family:

...Navy families appear to place greater emphasis on the direct and open expression of feelings and emotions (Expressiveness) in contrast to civilian families.

These findings contradict the stereotypical view of the "macho" serviceman and encourage an exploration of male sex role identification and its relationship to other satisfaction and retention issues.

Typologies

The typological approach to personality has been explored from many different perspectives. John Holland proposed six vocationally oriented typologies and further postulated that there are also six parallel vocational environments. Holland assumes that those individuals who are satisfied chose both vocations and environments that are

compatible with their type (Holland, 1973). Edward Spranger proposed a typology of six groups based on shared "...values or evaluative attitudes" (Allport, Vernon, and Lindzey, 1968).

In the early 1970's Bem developed a typology based on an individual's self-described sex-role identification. Measures of sex role identification reveal an individual's self-concept in terms of stereotypical feminine and masculine qualities. Within the Bem typology there are four discrete types. The masculine type describes himself according to more traditionally male characteristics (i.e. aggressive, forceful, competitive, independent, etc.). The feminine type describes himself with more traditionally female attributes (affectionate, understanding, adaptable, compassionate, etc.). The androgynous type has scores above the median for both masculine and feminine characteristics. "The concept of psychological androgyny implies that it is possible for an individual to be both compassionate and assertive, both expressive and instrumental, both feminine and masculine" (Bem, 1981). The undifferentiated type falls below the median for both masculine and feminine characteristics.

Person-Environment Models

A common focus of the major typology theorists concerns the interaction between specific typological groups and the environment. Behavior is viewed as an interaction between aspects of the person and the surrounding environment. Behavior is assumed to be a function of the individual within the context of the environment, and ideally, congruence between the individual and the environment will lead itself to increased satisfaction and productivity on both personal and vocational levels (Walsh, 1973).

Murray theorized that a person's behavior is a function of an interaction between the needs of the person and the press of the environment. Like other aspects of personality, needs are not directly observable and must be inferred from behavior.

The press of the environment is commensurate with the needs of the person and is an aspect of the surrounding situation in which the person is embedded.

La Rocco, Pugh, and Gunderson (1976) suggest focusing on "...organizational climate and individual personality traits" when exploring factors related to retention. That is examining the environmental press in relationship to the needs of the individual.

As studies over the past fifteen years have more closely examined some the unique stressors of military family life, many have focused on routine deployment (temporary assignment to remote locations) and how these separations may affect attitudes towards retention, satisfaction, family and other issues. Deployment represents an environmental press specific to the military. How an individual copes with the deployment is related to many factors, not the least of which is his specific grouping of personality traits.

Deployment

Most of the literature regarding deployment has focused on the effect on the family, since there is a strong relationship between retention and family satisfaction and separation. (Archer and Cauthorne, 1986; Nice, 1981)

Deployment is defined as a stressor for most families. In addition to the effect of the family on retention intent, other factors include the serviceman's perception of the level of stress and his attitude towards the Navy. (Archer and Cauthorne, 1986) They found that those active duty personnel who have higher self evaluations of job performance and more positive deployment attitudes were most likely to indicate an intent to make the Navy a career. Additionally, those individuals who report less predeployment and postdeployment stress are most likely to have positive intentions to stay in the Navy (Archer and Cauthorne, 1986).

In military family research to date, only passing homage has been paid to the changing attitudes of men, their changing roles in the family, and the implications of those changes in terms of the serviceman's satisfaction with military life, job satisfaction, and career intention. Along with the changing roles of men -- both in the military and in society -- come changing values. Derr, et al (1978) and Archer and Cauthorne (1986) both report emotional expressiveness and personal growth a hallmark of the "new" man. Recent information from a Navy Family Service Center support the notion of men's changing roles. It is reported that more and more single men are seeking personal counselling on their own (personal communication, 1987).

Previous studies have shown that certain types of people do well in certain situations and environments, while others do not (Archer and Cauthorne, 1986; Derr et al, 1978; Holland, 1973). Since we know that roles are changing in society, it will be informative to examine the relationship between sex role identification types and deployment/retention issues.

Using a sex role typology, this study will examine the relationship between sex role identification and job satisfaction, career intention, and overall satisfaction with military life among a male, active duty population.

HYPOTHESES

The hypotheses for this study will be grouped by the dependent variables utilized for this study. It is hypothesized that the Bem Sex Role typology will be related to adaptation to deployment. Specifically:

GENERAL SATISFACTION WITH NAVY LIFE

Hypothesis GS-1: There will be significant differences between the Bem categories on General Satisfaction across all phases.

Hypothesis GS-2: The masculine type will score significantly higher on General Satisfaction than the feminine type, with the androgynous and undifferentiated falling between the masculine and the feminine types.

Hypothesis GS-3: General Satisfaction scores will be higher for all groups at the predeployment and postdeployment phases; that is, phases 1, 2 and 5, 6 will be higher than phases 3 and 4.

Hypothesis GS-4: The masculine type will show less variability in their General Satisfaction scores across the six phases of the deployment than the other three types.

CAREER INTENT

Hypothesis CI-1: There will be significant differences between the Bem categories on Career Intent across all phases.

Hypothesis CI-2: The masculine type will score significantly higher on Career Intent than the feminine type, with the androgynous and undifferentiated falling between the masculine and the feminine types.

Hypothesis CI-3: Career Intent scores will be higher for all groups at the predeployment and postdeployment phases; that is, phases 1 and 6 will be higher than phase 4.

Hypothesis CI-4: The masculine type will show less variability in Career Intent scores across the six phases of the deployment than the other three types.

JOB SATISFACTION

Hypothesis JS-1: There will be significant differences between the Bem categories on Job Satisfaction across all phases.

Hypothesis JS-2: The masculine and androgynous types will score significantly higher on Job Satisfaction than the feminine and undifferentiated types.

Hypothesis JS-3: Job Satisfaction scores will be higher for all groups at the predeployment and postdeployment phases; that is, phases 1 and 6 will be higher than phase 4.

Hypothesis JS-4: The masculine type will show less variability in their Job Satisfaction scores across the six phases of the deployment than the other three types.

METHOD

The purpose of this study is to investigate the relationship between sex role identification as defined and measured by the BEM SEX ROLE INVENTORY (BSRI) and retention and satisfaction with military life as defined and measured by select items on the FAMILY COPING PROJECT (FCP) questionnaires across the six assessments prior, during, and following deployment.

The present study is taken from a larger longitudinal study of families experiencing a routine deployment as members of a Navy Patrol Squadron (VP). This study focuses on the active duty members of the family and follows their change in attitude over six phases of the deployment cycle: (See Appendix 1 - Family Study Schedule)

Phase 1 - two months prior to deployment

Phase 2 - two weeks prior to deployment

Phase 3 - two months into the deployment

Phase 4 - one month prior to reunion

Phase 5 - two weeks post-reunion

Phase 6 - two months post-reunion

Subject Recruitment

Approximately four months prior to deployment, subjects were recruited to participate in a study on Family Stress and Coping Issues related to deployment. Presentations were made to all prospective active duty subjects by members of the research team explaining the purpose of the study. Each presentation took approximately one hour. Those individuals who were willing to participate in the study were asked to sign a consent form giving the researchers permission to contact their spouse. Ninety-five percent of the wives contacted agreed to participate in this study. Informed Consent forms were obtained from all subjects.

Human subjects protocol precludes any social or demographic comparison between those who chose to participate in the study and those who did not. As with other similar studies, it is likely that the more severely disturbed and isolated families and individuals are underrepresented.

Subjects

The final sample for this study consisted of 64 active duty males currently stationed in five different VP (Patrol Squadron) squadrons located at Moffett Field, California. All subjects had at least 12 months left on their sea duty tour and were therefore able to complete a full six month deployment plus at least two postdeployment months in the squadron.

Subjects ranged in age from 20 to 40 with a mean age of 30.95.

Eighty-eight percent of the subjects were Caucasian, 4.3% Hispanic, 5.8% Pacific Islander, and 1.5% "other".

Overall, the sample was relatively well educated and financially secure. Twenty-five percent of the subjects were college graduates, 36% had some college, 26.6% graduated high school, 7.2% went to a trade school, and 7.3% attended a professional school. Eighty-five percent of this sample felt that they were either "OK" or in good financial shape, while only 14.5% felt that they were experiencing financial difficulty.

The mean number of years in service for the subjects was 10.23 with a range from 1.2 years to 19 years. Subjects experienced a mean number of deployments of 2.95 with a range from 0 to 20. Subjects' pay grades ranged from E2 to O5, with 11.4 percent in E1 - E4 and 64.3 percent in E5 - E9. The range in officer pay grade was O2 to O5 with 24.3 percent in the officer category.

By design, all subjects in this study were married. The mean years married was 7.97 years with a range from 1 to 21 years.

Based on scores obtained on the Bem Sex Role Inventory (BSRI), subjects were classified in one of four categories. Of the total N of 64, 15.6% (N=10) were androgynous, 44.3% (N=29) were masculine, 12.5% (N=8) were feminine, and 26.5% (N=17) undifferentiated. This categorization serves as the independent variable for the analysis that will be presented.

TABLE 1

DEMOGRAPHICS BY TYPE

	(16%) ANDROGYNOUS (N=10)	(45%) MASCULINE (N=29)	(13%) FEMININE (N=8)	(26%) UNDIFFERENTIATED (N=17)
AGE	28.00	32.34	29.88	30.66
TIME ON ACTIVE DUTY	7.93	11.58	10.93	9.00
YEARS MARRIED	4.48	10.17	7.32	6.26
NUMBER OF DEPLOYMENTS	1.30	3.84	2.88	2.44
FAMILY IN MILITARY				
YES (%)	12.50	37.00	11.10	20.00
NO (%)	87.50	63.00	88.90	80.00
PAY GRADE				
E2-E4(%)	28.60	42.90	14.30	14.30
E5-E8(%)	13.30	46.70	15.60	24.40
O2-O5(%)	11.80	47.10	5.90	35.30

Measures

The measures used in this study were the Bem Sex Role Inventory (BSRI) and selected items from the Family Coping Project Questionnaires (FCPQ). The BSRI was included in the FCPQ at phase six.

All measures were administered by mail to the subjects and were paper-pencil tests. Each measure included its own set of instructions. Subjects were able to take as much time as they needed to complete the questionnaires. In pilot testing, it was found that the average time to complete each questionnaire ranged from 45 minutes to one hour and 15 minutes.

Bem Sex Role Inventory (BSRI) (Bem, 1981)

The Bem Sex Role Inventory (Appendix 2) used in this analysis was administered at Phase 6 of the parent study. The BSRI consists of a 60-item list of personality characteristics -- 20 stereotypical feminine items (i.e., understanding, gentle), 20 stereotypical masculine items (i.e. independent, assertive), and 20 filler items (i.e, happy, sad). Subjects were asked to rate each of the 60 items on a seven point scale that ranged from 1-never or almost never true to 7-always or almost always true. Categorization of the subjects is based upon a median split of both the masculine and feminine items of the scale. Those who are high on masculine scores (above the median) and low on feminine scores are labeled masculine. The reverse applies to feminine types. Androgynous individuals scores reside in the quadrant with both high masculine and high feminine scores. The undifferentiated group score below the median on both the masculine and feminine dimensions.

Previous research has shown the BSRI to be internally consistent and stable across time.

Validity studies have supported Bem's central hypothesis that sex-typed individuals are more limited in their behavior choices. Additional studies supporting the validity of the BSRI are listed in Appendix E of the "Bem Sex-Role Inventory Professional Manual" (Bem, 1981).

Family Coping Project Questionnaires (FCPQ)

The variables (Appendix 3) used for this study are taken from a larger questionnaire that includes social and demographic variables, health, stress and coping variables, marital satisfaction, family satisfaction, and a range of psychological variables. The larger questionnaire is a broad-based comprehensive instrument issued at six phases of the deployment cycle. Variables selected for use in this study are single item questions related to general satisfaction with military life, current job satisfaction, and career intention.

Data Collection

Questionnaires were mailed to the subjects according to a specified time schedule based on the deployment cycle (Appendix 1). If the questionnaire was not returned in 10 working days, a reminder letter was immediately sent.

All subjects were volunteers, and were not informed of the specific research hypotheses.

Data Analysis

In order to examine the effects of the BEM categories, phases of the deployment cycle, and the interaction of these two independent variables upon general satisfaction, job satisfaction, and career intent, a series of two factor repeated measures analysis of variance and multivariate analysis of variance were used. Also, to evaluate specific subgroup and phase differences, several post hoc and planned comparison analyses were conducted.

RESULTS

This section presents the results of the analyses organized by hypothesis. The hypotheses for this study are grouped by dependent variables.

A two-factor repeated measures analysis of variance was used to test all hypotheses, with the exception of hypothesis CI-3 . For hypothesis CI-3, a multivariate approach was utilized because the tests of assumption for a univariate approach were rejected.

Unless otherwise indicated, all tests were done at the .05 level of significance.

GENERAL SATISFACTION WITH NAVY LIFE

Hypothesis GS-1: There will be significant differences between the Bem categories on General Satisfaction across all phases.

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Table 2
General Satisfaction ANOVA Table

Source	df	SS (U)	MSS	F	P
Between Subjects	63	191.9847			
B (BEMCAT)	3	45.8082	15.2694	6.268	.0009

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Table 2 indicates that this hypothesis was strongly supported, i.e., there are significant differences between the Bem categories on general satisfaction across all phases.

Hypothesis GS-2: The masculine type will score significantly higher on General Satisfaction across all phases than the feminine type, with the androgynous and undifferentiated falling between the masculine and the feminine types.

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Table 3
General Satisfaction Post Hoc Comparison

<u>Bem Categories</u>	<u>Mean over all phases</u>
Androgynous (group 1)	3.69
Masculine (group 2)	3.86
Feminine (group 3)	2.97
Undifferentiated (group 4)	3.21

<u>Comparison</u>	<u>Newman-Keuls</u>
1 > 3	.05
2 > 3	.01
2 > 4	.05

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Again, this hypothesis was supported in whole. A Newman-Keuls post hoc comparison revealed significant differences between the masculine and feminine types at the .01 level, and the masculine and undifferentiated types at the .05 level. The mean scores for the masculine types were significantly greater than the mean scores for the feminine type on general satisfaction. Additionally, the mean scores for the masculine types were significantly greater than the undifferentiated types on general satisfaction.

A significant difference was also found between the androgynous and the feminine types with the androgynous group having a significantly higher mean than the feminine group on general satisfaction.

Hypothesis GS-3: General Satisfaction scores will be higher for all groups at the predeployment (phases 1, 2) and postdeployment (phases 5, 6) phases; that is, phases 1, 2, 5 and 6 will be higher than phases 3 and 4.

TABLE 4

GENERAL SATISFACTION
BY BEM CATEGORIES BY PHASE

	ANDROGYNOUS		MASCULINE		FEMININE		UNDIFFERENTIATED	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
PHASE 1	3.80	.78	3.76	.89	3.04	1.02	3.47	1.00
PHASE 2	3.83	.74	3.89	.77	3.25	1.03	3.43	1.05
PHASE 3	3.70	.67	3.87	.67	3.37	1.18	3.20	.95
PHASE 4	3.73	.79	3.67	.99	2.75	1.03	2.95	1.20
PHASE 5	3.10	.99	3.92	.78	2.68	.79	3.14	1.11
PHASE 6	4.00	.47	4.03	.56	2.75	.88	3.05	1.14

"In general, how satisfied are you with all aspects of Navy life (including work, services, etc.)?"

- 5 = very satisfied
 4 = fairly satisfied
 3 = not sure
 2 = fairly dissatisfied
 1 = very dissatisfied

A planned statistical comparison was done to test this hypothesis. This hypothesis was not supported as there were no within-subject statistically significant differences ($p=.28$) on the General Satisfaction variable between sets of phases.

Hypothesis GS-4: The masculine type will show less variability in their General Satisfaction scores across the six phases of the deployment than the other three types.

In order to test this hypothesis a satisfaction range was computed (maximum minus minimum score) for each of the subjects on General Satisfaction. These ranges were then used as dependent variables in one way analyses of variance between the Bem types.

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Table 5

General Satisfaction By Difference Scores

Androgynous		Masculine		Feminine		Undifferentiated	
\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1.16	1.00	1.03	.99	2.06	.37	1.61	1.01

F = 3.49

P = .01

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Results of the oneway analysis of variance indicate a statistically significant difference between groups on general satisfaction difference scores at the $p = .01$ level. Post hoc comparisons were done to determine the location of the between group differences.

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Table 6

General Satisfaction Post Hoc Difference Scores

<u>Bem Categories</u>	<u>Mean over all phases</u>
Androgynous (group 1)	1.16
Masculine (group 2)	1.03
Feminine (group 3)	2.06
Undifferentiated (group 4)	1.61

<u>Comparison</u>	<u>Newman-Keuls</u>
1 < 3	.05
2 < 3	.05

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A Newman-Keuls post hoc comparison revealed significant differences between the masculine and feminine types and the androgynous and feminine type. The mean minimum/maximum difference scores for the masculine and the androgynous types were significantly lower (indicating a narrower range of variability on scores) than the mean of the difference scores for the feminine type.

CAREER INTENT

Hypothesis CI-1: There will be significant differences between the Bem categories on Career Intent across all phases.

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Table 7

Career Intent ANOVA Table

Source	df	SS (U)	MSS	F	P
Between Subjects	63	278.4912			
B (BEMCAT)	3	40.3439	13.4480	3.388	.02

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Results of table 7 indicate that there are statistically significant differences between the groups at the $p = .02$ level with respect to the subjects intent to make the Navy a career.

Hypothesis CI-2: The masculine type will score significantly higher on Career Intent than the feminine type, with the androgynous and undifferentiated falling between the masculine and the feminine types.

A planned statistical comparison was done comparing the masculine and feminine groups. The results indicated that there was a significant difference between the masculine and feminine types on their intent to make the Navy a career, with the masculine type being more inclined towards a career across all phases than the feminine type ($f = 9.74$, $p = .003$)

Hypothesis CI-3: Career Intent scores will be higher for all groups at the predeployment and postdeployment phases; that is, phases 1 and 6 will be higher than phase 4.

TABLE 8

CAREER INTENT
BY BEM CATEGORIES BY PHASE

	ANDROGENOUS		MASCULINE		FEMININE		UNDIFFERENTIATED	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
PHASE 1	4.28	.45	4.50	.86	4.00	1.52	4.11	.99
PHASE 2	3.82	.75	4.44	.90	3.85	1.46	3.94	1.19
PHASE 3	3.72	1.10	4.41	.73	3.67	1.61	3.93	1.02
PHASE 4	3.80	1.16	4.43	.64	3.28	1.70	3.76	1.03
PHASE 6	3.45	1.50	4.58	.50	3.00	1.73	3.58	1.37

"Do you intend to make the Navy your career?"

- 5 = definitely yes
- 4 = probably yes
- 3 = not sure
- 2 = probably not
- 1 = definitely not

A multivariate analysis of variance (MANOVA) was utilized to examine the differences between the phases. Results indicate no interaction between group and phase but significant differences due to phase exist ($F = 4.82$, $p = .002$).

Post hoc comparisons were done to examine the location of the differences between phases.

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Table 9

Career Intent Post Hoc Comparisons

	PHASES				
	1	2	3	4	6
Combined Means	4.31	4.14	4.07	4.01	3.95
Phase Comparison	Newman-Keuls				
1>4	.05				
1>6	.01				

XX

Examination of table 9 reveals that hypothesis 7 is supported only in part. The mean scores on Career Intent were significantly higher at phase 1 (predeployment) than at phase 4 (during deployment). There appeared to be no significant differences between phase 4 (deployment phase) and phase 6 (postdeployment phase). There was, however, a significant difference between phases 1 and 6 (predeployment and postdeployment) with the means for career intent being higher during the predeployment phase.

Hypothesis CI-4: The masculine type will show less variability in Career Intent scores across the six phases of the deployment than the other three types.

Again, in order to test this hypothesis a Career Intent range was computed (maximum minus minimum score) for each of the subjects. These ranges were then used as dependent variables in one way analysis of variances between the Bem types.

XX

Table 10

Career Intent By Difference Scores

Androgynous		Masculine		Feminine		Undifferentiated	
\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1.37	1.09	.71	.76	1.33	1.32	.88	.89

F = 2.13

P = .10

XX

Results of the oneway analysis of variance indicate no statistically significant differences between groups on the variability of career intent, however, a trend exists with the androgynous and feminine groups demonstrating more variability on this variable.

JOB SATISFACTION

Hypothesis JS-1: There will be significant differences between the Bem categories on Job Satisfaction across all phases.

XX

Table 11

Job Satisfaction ANOVA Table

Source	df	SS (U)	MSS	F	P
Between Subjects	63	200.6971			
B (BEMCAT)	3	69.7522	23.2507	10.654	.0000

XX

Table 11 reveals a significant difference between the Bem categories on job satisfaction across all phases.

Hypothesis JS-2: The masculine and androgynous types will score significantly higher on Job Satisfaction than the feminine and undifferentiated types.

XX

Table 12

Job Satisfaction Post Hoc Comparisons

<u>Bem Categories</u>	<u>Mean over all phases</u>
Androgynous (group 1)	4.21
Masculine (group 2)	3.91
Feminine (group 3)	2.74
Undifferentiated (group 4)	3.25

<u>Comparison</u>	<u>Newman-Keuls</u>
1 > 2	NS
1 > 3	.01
1 > 4	.01
2 > 3	.01
2 > 4	.05

XX

This hypothesis was supported in whole. The Newman-Keuls post hoc comparisons on Table 12 reveal that both the masculine and the androgynous groups are significantly higher than the feminine and undifferentiated groups on job satisfaction across all phases. The table also reveals that the masculine and the androgynous are not significantly different from each other on job satisfaction.

Hypothesis JS-3: Job Satisfaction scores will be higher for all groups at the predeployment and postdeployment phases; that is, phases 1 and 6 will be higher than phase 4.

TABLE 13

JOB SATISFACTION
BY BEM CATEGORIES BY PHASE

	ANDROGENOUS		MASCULINE		FEMININE		UNDIFFERENTIATED	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
PHASE 1	4.07	.31	4.08	.77	3.28	.95	3.41	1.32
PHASE 2	4.16	.41	4.13	.74	3.28	.95	3.75	1.08
PHASE 3	4.45	.52	3.81	1.13	2.28	.75	3.27	1.20
PHASE 4	4.12	1.01	3.57	1.07	2.57	.78	2.84	1.19
PHASE 6	4.27	.46	3.96	1.01	2.28	1.25	3.00	1.32

"Overall, how satisfied are you with your current Navy job?"

- 5 = very satisfied
 4 = somewhat satisfied
 3 = not sure
 2 = somewhat dissatisfied
 1 = very dissatisfied

A two factor repeated measures analysis of variance indicated that there was no interaction between Bem categories and phase, but there was a significant phase effect; that is, there were significant differences (at the .03 level) between phases on job satisfaction. A post hoc comparison was done to examine the differences between phases.

XX

Table 14

Job Satisfaction Post Hoc Comparisons By Phase

	PHASES				
	1	2	3	4	6
Combined	3.81	3.94	3.61	3.36	3.57
means					

Phase

Comparison

Newman-Keuls

1 > 4	.05
2 > 4	.01

XX

Only partial support for hypothesis JS-3 was found. Table 14 reveals that there were significant differences on job satisfaction between the predeployment phases (phases 1 and 2) and the deployment phase (phase 4) with the means being higher at phases 1 and 2. However, there were no significant differences between the deployment phase and the postdeployment phase.

Hypothesis JS-4: The masculine type will show less variability in their Job Satisfaction scores across the six phases of the deployment than the other three types.

XX

Table 15

Job Satisfaction By Difference Scores

Androgynous		Masculine		Feminine		Undifferentiated	
\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1.08	.72	1.56	1.08	2.11	1.05	1.97	.88

$F = 2.98$

$P = .03$

XX

Results of the oneway analysis of variance indicate a statistically significant difference between groups on job satisfaction at the $p = .03$ level of significance. Post hoc comparisons were done to determine where the differences were.

XX

Table 16

Job Satisfaction Difference Scores Post Hoc Comparisons

<u>Bem Categories</u>	<u>Mean over all phases</u>
Androgynous (group 1)	1.08
Masculine (group 2)	1.56
Feminine (group 3)	2.11
Undifferentiated (group 4)	1.97

<u>Comparison</u>	<u>Newman-Keuls</u>
1 < 3	.05
2 < 4	.05

XX

A Newman-Keuls post hoc comparison revealed significant differences between the androgynous and the feminine and the androgynous and the undifferentiated types.

Hypothesis JS-4 was not supported; it was the androgynous that appeared to manifest less variability on job satisfaction. Though not significant, the pattern for masculine/feminine type difference still held. The mean minimum/maximum difference score for the masculine type was lower than the mean minimum/maximum score for the feminine type.

DISCUSSION

Society's changing attitudes towards men's roles have enabled men to attain more culturally endorsed role flexibility. Orthner and Nelson (1980) have stated, "...the Navy family, like American families in general, cannot be characterized in a consistent, always predictable manner."

It cannot be assumed that Navy families follow a traditional role structure, nor can it be assumed that male active duty Navy personnel are sex-role identified within a stereotypical masculine typology. These changing roles are reflected not only in the family environment, but in the work environment as well.

The present study utilized a longitudinal design to examine the effects of sex role identification on adaptation to deployment and it examined a variety of outcome measures. Overall, as predicted, sex role identification was related to general satisfaction, job satisfaction, and career intent. Further, the scores on these variables varied as a function of stage of deployment with the general pattern being a decline from predeployment until the later stages of deployment with little recovery in the postdeployment phase.

In interpreting the findings, it may prove helpful to reiterate the definition of types. The BSRI allows for an individual to be categorized according to one of four types. The type defined as *masculine* according to the BSRI (See Appendix 2) represent individuals who describe themselves more with traditional masculine characteristics (i.e., aggressive, forceful, competitive, independent). The *feminine* type represents those individuals who identify more strongly with adjectives like affectionate, understanding, adaptable, and compassionate. The *androgynous* type categorizes those who have rated themselves above the median for this population on both masculine and feminine qualities. The *undifferentiated* group are those who fall below the median on both masculine and feminine traits.

Typology Issues

It was predicted, because the Navy reflects an environment which imposes demands that are more congruous with the masculine type, that those individuals in our population who are masculine identified would be more satisfied both with their jobs and with Navy life in general. It was also predicted that the masculine typed individuals would be more likely to hold fast in their intent to make the Navy their career.

Hypotheses GS-1, CI-1, and JS-1 predicted significant differences between the Bem sex role categories on general satisfaction, job satisfaction, and intent to make the Navy a career over the deployment cycle. Significant differences were demonstrated between the four Bem categories on all three dependent variables, but no interaction between phase and type was shown. This indicated that, while the types were different from each other, they varied across the deployment phases in a similar pattern.

It was further predicted in hypotheses GS-2 (general satisfaction), CI-2 (career intent), and JS-2 (job satisfaction) that, because the military is a predominantly masculine sex typed environment, the greatest differences would appear between the masculine and the feminine types. This should not be misunderstood to imply a value difference between masculine dominant and feminine dominant types. The hypothesis was that the person-environment conflict between feminine dominant individuals in the military would be greater than the person-environment conflict between masculine dominant individuals in the military. These two groups represented the most divergent constellation of needs and resources with respect to sex role identification. Currently, the military environment is more congruent with masculine sex typed individuals hence they experience less conflict.

Because of their role flexibility, the androgynous group was not predicted to demonstrate differences on general satisfaction and career intention across phase. However, hypothesis JS-2 (job satisfaction) did

predict that the androgynous group would join the masculine group in exhibiting significant differences from the feminine group. Androgyny reflects role flexibility; the more flexible the individual, the less likely he may be to hold rigid expectations on which his job satisfaction depends. Job satisfaction primarily involves an individual in a work environment. It may be that the more flexible androgynous type requires more of a balance between home and work, and that this type can demand less from his work environment and still feel that his satisfaction needs are being met.

General satisfaction and career intent are issues that seem to involve more than just the individual. They can affect and be affected by the family as well. It may be that the androgynous type is more likely to consider the feelings and attitudes of those in his family when making these assessments and thus lowers his sense of satisfaction on these two issues.

Hypotheses GS-4, CI-4, and JS-4 examine the differences between the types with respect to range scores, subtracting the minimum from the maximum score for each individual to determine the range of variability across the phases of the deployment for each of the three dependent variables. The results indicated that, for general satisfaction, both the masculine and the androgynous types varied significantly less than the feminine type. That is, the androgynous and masculine types were more consistent in their level of general satisfaction over the course of the deployment. A similar pattern existed on job satisfaction. The masculine types were significantly different from the undifferentiated types and the androgynous types were significantly different from the feminine types. While the difference between the masculine and feminine types was not significant, the pattern was the same.

Another interesting difference was noted between the masculine and the other types. Table 1 shows that for the masculine types, 37% came from career military families as opposed to 12.5% for the androgynous type, 11.1% for the feminine, and 20% for the

undifferentiated. While the differences between groups was not statistically significant, a partial explanation as to why the masculine types experienced less variability in their satisfaction attitudes may lie in their expectations. The military has always been a familiar environment for many of the masculine types in this sample. Table 1 also shows that the masculine types have experienced significantly more deployments ($p=.05$) than the other three types. Given the experience of more frequent deployments and more familiarity with the deployment process, it is possible that the masculine types were more comfortable with the deployment process and therefore less reactive.

Overall, the findings went in the predicted directions. The masculine typed individuals were generally more satisfied both with their jobs and with Navy life in general. The androgynous types were also generally more satisfied than the undifferentiated and the feminine types. Both masculine typed subjects and androgynous subjects strongly identify themselves with masculine characteristics. This indicates a congruent person environment fit for these types. While the feminine dominant subjects and the undifferentiated subjects appeared less satisfied than the masculine and androgynous, they were not terribly dissatisfied overall. It appears that the major difference between these four types, on the variables studied, was in the level of satisfaction. Significant differences between the types reflected masculine typed subjects generally higher than the others. Androgynous types tended to be more like the masculine, especially on job satisfaction. Lower satisfaction for feminine dominant and undifferentiated types may be related to the fact that they rate themselves lower on masculine characteristics, and are less congruent with their environment.

Phase Issues

Hypotheses GS-3, CI-3, and JS-3 predicted higher general satisfaction, career intent, and job satisfaction scores for pre and postdeployment phases than for deployment phases. With respect to general satisfaction alone, the hypotheses were not supported.

One explanation for the finding that general satisfaction did not vary for each of the types across phase might be that this kind of global satisfaction measure obscures the specific satisfactions and dissatisfactions which affect each individual's daily experience. The other measures, job satisfaction and career intent, might induce answers with less intrapersonal variance because they are clearly topic specific and less ambiguous.

In future studies from this sample, it will be important to evaluate the relationship between specific concerns and general satisfaction and the impact of this relationship upon other outcome measures such as retention attitude.

Career Intent - Phase Issues

For all groups, on the career intent variable, there were significant differences between phase one (predeployment) and phase four (deployment) with phase one being significantly higher than phase four. Several aspects of the deployment experience might be associated with this flagging in career intent at phase four. In our briefings prior to deployment, several of the men remarked that the period in which phase four assessments were drawn (one month prior to reunion) was particularly difficult because they experience a kind of deployment "burnout". The newness of their site specific jobs has worn off and they are beginning to look more consistently homeward for an idealized relief from the deployment blues. The depressive combination of job monotony, fatigue, and wishes to be home, probably leads to changes in their resoluteness about career intent.

The reader is reminded however, that for each of the groups, the overall level of commitment to the Navy as a career for all groups remains relatively high across all phases.

Another view of this difference between phase one and phase four might suggest that phase four is lower because phase one represents a period of elevated mood in anticipation of getting underway; thus the phase four might be actually the more stable measure of career intent with phase one being situation reactive.

Archer and Cauthorne's (1986) findings regarding the correlates of career intent partially support this latter hypothesis. They found that a positive attitude towards deployment was a strong predictor of career intent.

For career intent, significant differences were also demonstrated between phase one (predeployment) and phase six (postdeployment) with the postdeployment scores being significantly lower. Since phase six occurred two months post reunion, one explanation for the difference between these phases might be that individuals or their spouses were

simply still having a difficult time reintegrating into the family or returning to a nondeployed work status (Archer and Cauthorne, 1986).

To some extent, this finding supports the "predeployment positive anticipation" hypothesis described above. Phase six may represent more of a baseline measure of career intent in that the anticipation and excitement of deployment is now remote.

Job Satisfaction - Phase Issues

The findings for job satisfaction were similar to those for career intent. Subjects felt significantly more positive toward their jobs at phases 1 and 2 (predeployment) than they did at phase 4 (one month prior to reunion). There were no significant differences between phases 4 and 6; their job satisfaction at phase 6 also remained low — at least lower than it was at phase 1. This may be another indication that the reunion phase which includes the necessity of reintegration into the family and adaptation to a nondeployed work status takes longer than two months (McCall, 1981; Nice, 1981). Other research has documented that the reunion phase of deployment is the most difficult time of the deployment cycle for the family:

Further, the reunion period, or postdeployment interval, was consistently shown to be a uniquely stressful period in terms of individual's commitment to their jobs, perceptions of life stress, and perceptions of family function (Archer and Cauthorne, 1986).

Archer and Cauthorne (1986) reported that the sailors' deployment emotional distress and a positive deployment attitude are two of the predictors of their self-rating of job performance.

While the repeated measures analysis showed no statistically significant interactions between phase and BEM types for any of the satisfaction or career intent measures, Figures 1 - 3 portray several tentative patterns of relationship which merit discussion and further research. First, as mentioned earlier, all four types indicated relatively high levels of satisfaction across all the phases. For the most part, the mean scores ranged from somewhat dissatisfied to somewhat satisfied on general satisfaction and job satisfaction (See Figures 1 and 2).

Within this constricted range however, the masculine and androgynous types appeared to be consistently more satisfied than the other two types. Perhaps the more specific measures of satisfaction vis a vis the more specific aspects of the general and work environments

would have achieved more accurate (and statistically significant) differences between the overall patterns reported by the groups.

For the career intent variable, the pattern was somewhat different. The masculine dominant type varied little across all the phases of the deployment (see Figure 3). The other three types appeared to steadily decline in their intent to make the Navy a career. Their scores hovered between "not sure" (3) and "probably yes" (4) while the scores for masculine typed subjects were in the "probably yes" to "definitely yes" range. It is likely that the androgynous type joined the feminine and undifferentiated types in this decline in career intent because as representatives of the "young careerists" the factors related to their satisfaction are more broad-based. Family needs and concerns may be more of a factor to androgynous individuals on major life decisions that affect others. As discussed earlier "...young careerists identify their family and their opportunity for self-improvement as their primary values in life " (Derr et al, 1978). Future research exploring the sex role identification of these "new careerists" could be informative. Table 1 shows that although the differences were not statistically significant, the androgynous group was younger than the other three groups, had less time in the Navy, and was married the least number of years (this finding was statistically significant:

$p < .05$).

Figure 1

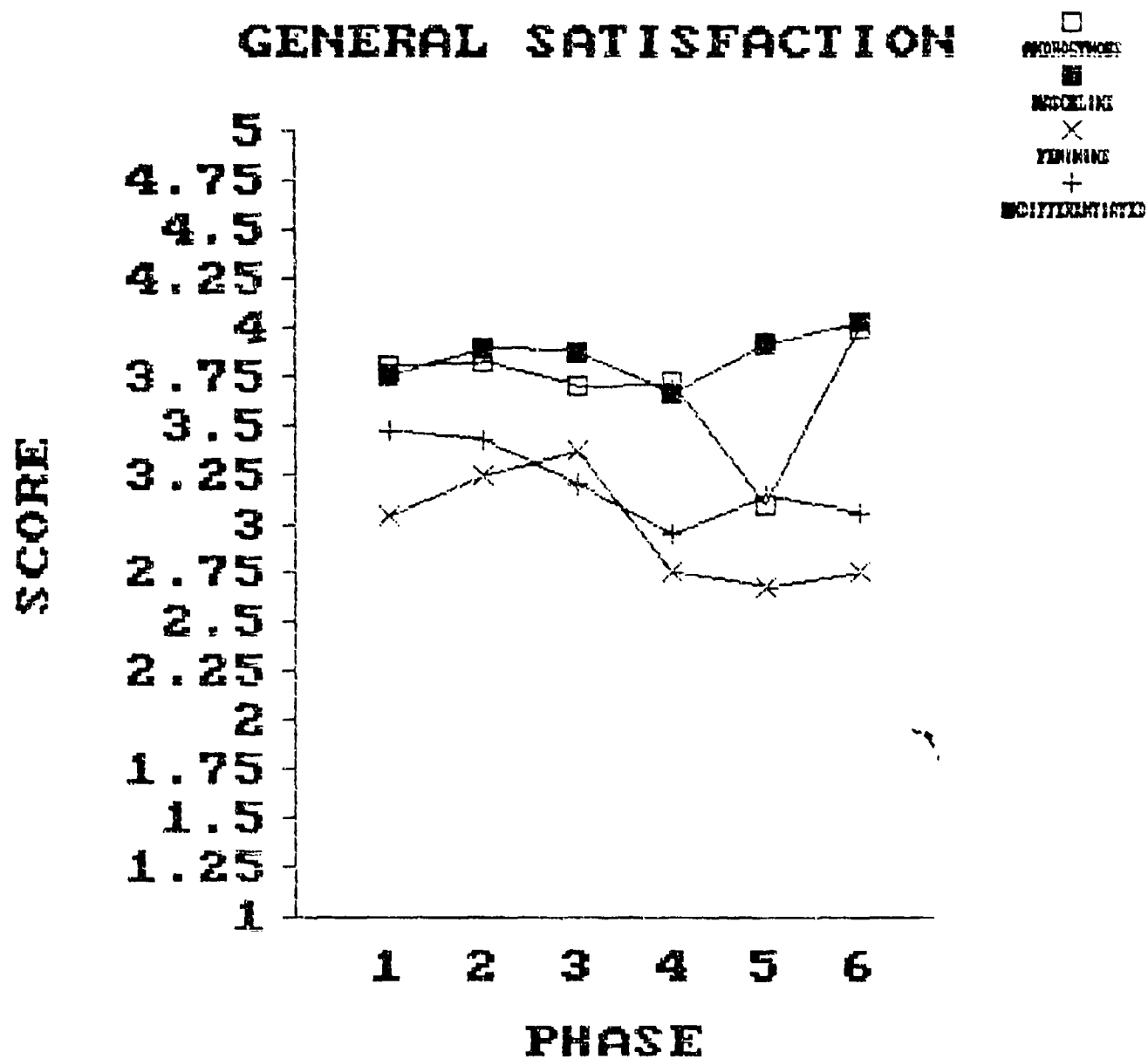


Figure 2

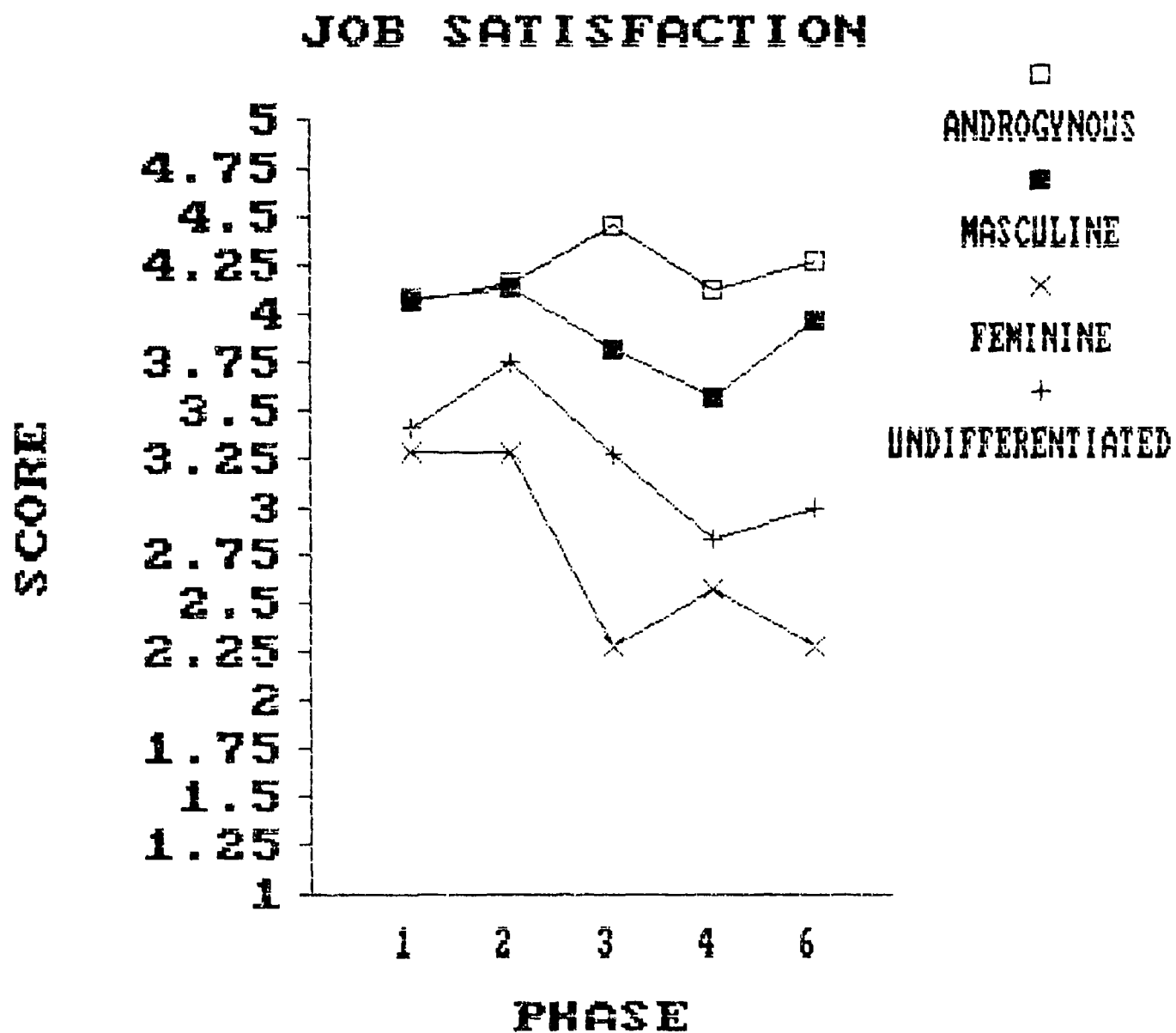
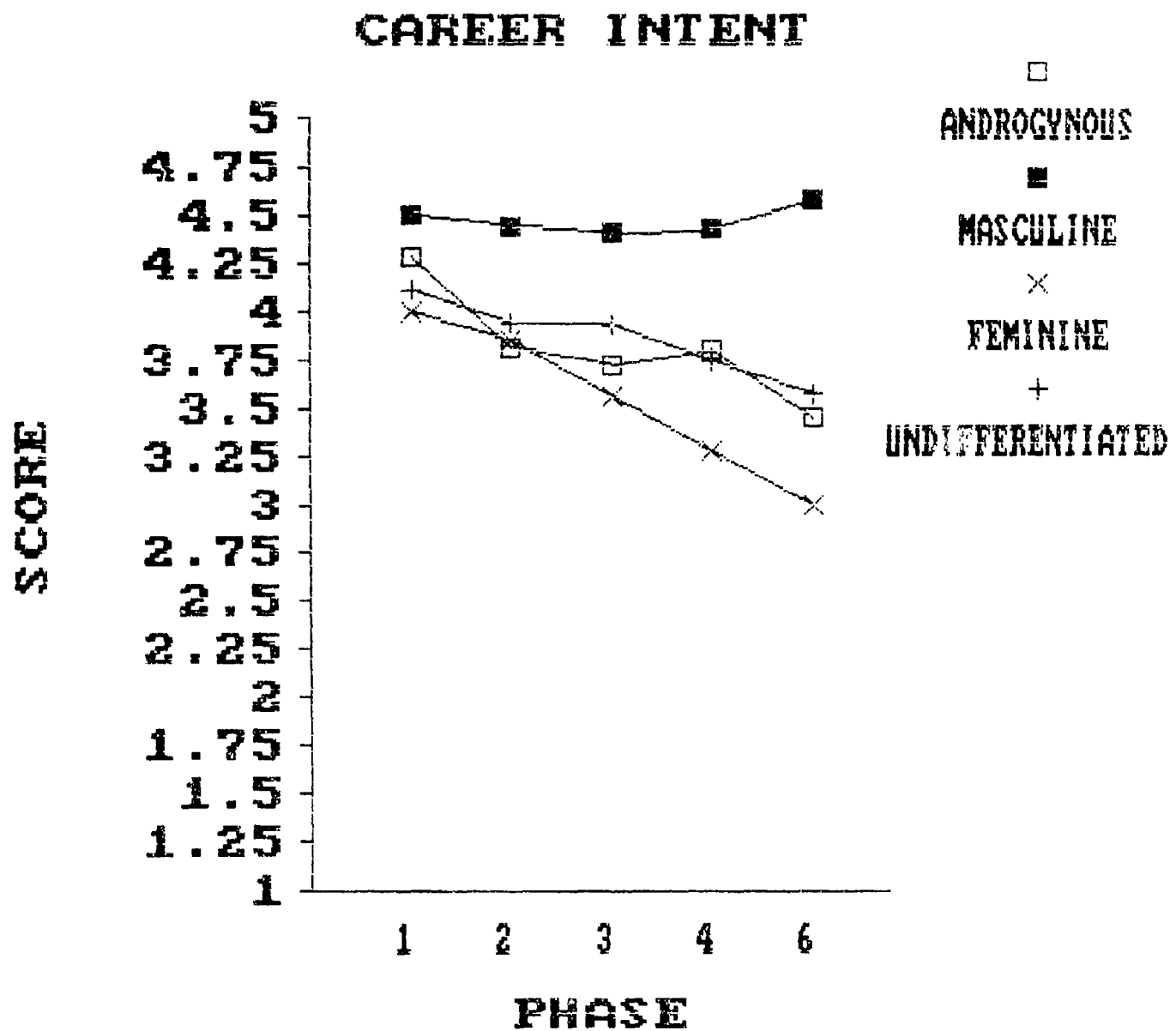


Figure 3



Phase Effects

Overall, phase of the deployment effected all three outcome measures, but in a somewhat different way than originally hypothesized. Specifically, the nadir of satisfaction and commitment to a career in the Navy was reached by phase four, one month prereunion. This lowered level of satisfaction persisted throughout the last assessment phase, which was two months postdeployment. There are several notions as to why this happened. The literature has documented that the reunion phase is the most difficult time in the deployment cycle. It has been assumed that reunion begins at homecoming. An alternative hypothesis is that reunion begins long before the plane actually lands at home. Emotional and psychological preparation may begin well before the actual reunion. The lowered scores on job satisfaction and career intent at phase four may be an indication of the restlessness that occurs as a result of the discrepancy between being psychologically ready to go home and the reality of still being on deployment.

As discussed previously, there are several factors related to job satisfaction and career intent. Archer and Cauthorne (1986) note that the spouse's postdeployment related emotional distress is a factor in influencing career intent issues. Again, this undercores the importance of the impact of the reunion process on satisfaction and retention issues.

Overall, further research is suggested to examine both the specific psychological and environmental needs of the four types. Additionally, future research is indicated to explore the variables affecting the active duty person at the one month prereunion phase of the deployment.

STUDY LIMITATIONS

Before summarizing our conclusions, there are some limitations worth noting, inherent in the data collection method and instrument design. It is important to note that the subjects in this sample, while generally falling in the satisfied range on all three dependent variables, may not be representative of the V.P. community at large. It takes an unusually committed population to participate in a study of this nature. The participants in this study stayed with the research for ten months. They faithfully answered and returned fairly extensive questionnaires at six points in the deployment cycle. Because of the nature of this population, it is possible that the high satisfaction scores may be particular to this group.

Another, peculiar finding which should be grappled with in future studies is that the median split method used in categorizing the BSRI types produced comparable cell distributions to the 1978 population of Stanford students (Bem, 1981). Presumed significant social demographic differences between Navy men and Stanford students would suggest a likely difference with respect to the distribution of sex role types as well.

Table 17

Sample Comparison

	Androg.	Masculine	Feminine	Undiffer.
Stanford Males				
1978 (%)	19%	42 %	11%	27%
Navy Males				
1986 (%)	16%	45%	13%	26%

CONCLUSIONS

Based upon the findings in this report, sex role identification appears to be an important determinant of satisfaction and career intent. Despite changes in both the Navy and in the larger society, individuals who are higher in masculine identified characteristics, whether scoring in the masculine or androgynous quadrants of the BSRI typology, adapt best to deployment. Throughout all four quadrants of the typology, job satisfaction and commitment to career varied as a function of the phase of the deployment cycle. The lowest point was reached one month prior to reunion.

Navy efforts to increase both retention and satisfaction with a career that involves routine deployment need to take into account individual differences; specifically, sex role identification. It appears that the existing Navy environment is most compatible with the masculine or the androgynous types. However, as Segal (1984) noted, the role of the US Military in the world itself is changing. According to Segal and others, this shift to a more constabulary role may demand quite different role behaviors from military personnel. Indeed, this role of policing the peace may specifically require persons with more feminine stereotypical attitudes of understanding, adaptability, and compassion.

Further, the present research does not suggest efforts should be aimed toward the selection process or toward improving the environmental fit for the considerable proportion of men who fall into the feminine and undifferentiated sex role categories. A finer grained analysis is needed to discover the source of dissatisfaction and satisfaction for each of these groups which would offer more detailed suggestions about how to achieve a better fit for the groups.

It should be reiterated, however, that all four of the BSRI groups overall were generally satisfied with Navy life, satisfied with their jobs, and committed to a career in the Navy. This overshadows individual differences.

REFERENCES

- Abbot, Franklin, Ed., New Men, New Minds: Breaking Male Tradition. Crossing Press, Freedom, CA: 1987.
- Allport, G., Vernon, P. and Lindzey, G., "The AVL Study of Values". Class handout, 1968.
- Anon., "The Navy Wife and Family. NO Retention Study", US Pacific Fleet Unit, 1979.
- Archer, R.P and Cauthorne, C.V, "A Final Report on an Investigation of Deployment Related Factors on Performance and Psychosocial Adjustment". Tech. Report, Office of Naval Research, Arlington: 1986.
- Bem, Sandra Lipsitz, Bem Sex Role Inventory. Consulting Psychologists Press, Inc. Palo Alto: 1981.
- Campbell, D., Manual for the SVIB-SCII. Stanford University Press, Stanford, 1977.
- David, Deborah, and Brannon, Robert, Eds., Forty-Nine Percent Majority: The Male Sex Role, Addison-Wesley, Redding, Mass: 1976.
- Derr, C. Brooklyn, Hinckley, R. Mark and Decker, Kathryn, "The Impact of Marriage and Family on the Career Progression of Naval Officers". The Military Family and the Military Organization, E.J. Hunter and Shaylor, Eds. Provo: 1978.
- Dickieson, R.W., "Retention of Enlisted Men". US Naval Institute Proceedings, May, 1969.
- Dobrofsky, L.R., "The Wife: Military Dependent or Feminist?". Changing Families in a Changing Military System, E.J. Hunter, Ed. Naval Health Research Center, San Diego: 1977.

- Grace, G.L. & Steiner, M.B., "Wives' Attitudes and the Retention of Navy Enlisted Personnel". Military Families: Adaptation to Change, E.J. Hunter & D.S. Nice, Eds. Praeger Publ. New York: 1978.
- Grace, G.L. & Steiner, M.B., "Navy Wives' Attitudes as a Factor Influencing Retention of Navy Enlisted Personnel". Tech. Report, Navy Manpower R&D Program, Office of Naval Research, Arlington: 1978.
- Holland, J., Making Vocational Choices. Prentice Hall Inc. New Jersey: 1973.
- Hunter, E.J., Changing Families in a Changing Military System. Naval Health Research Center, San Diego: 1977.
- Hunter, E.J., Familypower: An Issue in Military Manpower Management. US International University, San Diego: 1979.
- Hunter, E.J., "Changing the Family Roles". Families Under the Flag, Praeger Publ., New York: 1982.
- Hunter, E.J. & Nice, D.S., Eds. Children of Military Families. US Government Printing Office, Washington D.C.: 1978.
- Jensen, P.S., Lewis, R.L. & Xenakis, S.N., "The Military Family in Review: Context, Risk and Prevention". Journal of the American Academy of Child Psychiatry, 25:2, 1986.
- Kohen, J.A., "The Military Career Is A Family Affair". Journal of Family Issues, 5:3, 1984.
- La Rocco, J.M., Pugh, W.M. & Gunderson, E.K.E., "Identifying Determinants of Retention Decisions". Personnel Psychology, 30, 1976.
- McCall, Celeste. "The Homecoming: Your Problems Aren't Over When He Gets Home", The Times Magazine, Washington D.C.: 1981.
- Marlowe, J.L., "Relationship Between Heath's Personality Typologies and Psychological Needs as Defined and Measured by the ACL". Unpublished paper, 1981.

- Martin, J.A., "Life Satisfaction for Military Wives". Military Medicine, 149, 1984.
- McCubbin, H.I., Marsden, M.A., Durning, K.P., & Hunter, E.J., "Family Policy in the Armed Forces - An Assessment." Air University Review, XXIX, No. 6, 1978.
- Nice, D.S., "A Longitudinal Analysis of Navy Family Separation". Naval Health Research Center, San Diego: 1981.
- Orthner, D.K., "Families in Blue - A Study of Married and Single Parent Families in the US Air Force". Family Research & Analysis, Inc., Greensboro, NC: 1980.
- Orthner, D.K. and Brown, R.J. III, "Single-parent fathers: Implications for the Military Family". Military Families: Adaptation to Change, E.J. Hunter & D.S. Nice, Eds., Praeger Publ. New York: 1978.
- Orthner, D.K. & Nelson, R.S., "A Demographic Profile of U.S. Navy Personnel and Families". Navy Family Support Program, Family Research and Analysis, Inc., Greensboro, NC: 1980.
- Osherson, Samuel, Finding Our Father, Free Press, New York: 1986.
- Segal, M.W. "The Military and the Family as Greedy Institutions". Armed Forces and Society, 13:1, 1986.
- Segal, David R., Harris, Jesse J., Rothberg, Joseph M., and Marlowe, David H. "Paratroopers As Peacekeepers". Armed Forces and Society, 10:4, 1984.
- Snyder, A.I., "The Effects of Husband's At-Sea Time Upon the Role Playing Behavior of the Submariner's Wife". Tech. Report, Office of Naval Research, Arlington: 1978.
- Stoddard, Ellwyn R., "Changing Spouse Roles: An Analytical Commentary". Military Families: Adaptation to Change, E.J. Hunter & D.S. Nice, Eds. Praeger Publ. New York: 1978.
- Taylor, M.C. & Hall, J.A., "Psychological Androgyny: Theories, Methods, and Conclusions". Psychological Bulletin, 92:2, 1982.

- Thomas, P.J. & Durning, K.P., "The Military Woman and the Navy Wife."
Changing Families in a Changing Military System, E.J. Hunter, Ed.
Naval Health Research Center, San Diego: 1977.
- Walsh, B., "Theories of Person-Environment Interaction". American
College Testing Program, Iowa: 1973.
- Webster, E.G., Hunter, E.J. & Palermo, D.C., "Changing Roles in Military
Families Following Prolonged Separation." Changing Families in a
Changing Military System, E.J. Hunter, Ed. Naval Health Research
Center, San Diego: 1977.
- Worthington, E.R., "Post Separation Adjustment and Women's Liberation".
Changing Families in a Changing Military System, E.J. Hunter, Ed.
Naval Health Research Center, San Diego: 1977.
- Yeatman, G.W., "Paternal Separation and the Military Dependent Child".
Military Medicine, 146, 1981.

FAMILY STUDY SCHEDULE

Phase 1 (2 mo. prior)	Phase 2 (2 weeks prior)	Phase 3 (2 mo. into)	Phase 4 (8 mo. into)	Phase 5 (2 mo. post)	Phase 6 (2 mo. post)
Background/SES Religion Navy status Help seeking Duty satisfaction Navy satisfaction Leisure activities	Deployment expectations Family and relative Deployment plans Deployment expectations Appraisal (self)	Income Deployment stress Deployment problem Work environment Visits to family Re-enlistment decisions Wife work attitudes Life stressors	Deployment stressed Reunion expect./concerns Deployment communication Deployment experience Wife's employment Employment satisfaction Employment social support	Stress change Reunion experiences Communication Family of origin	Deployment stresses Reunion review Androgyny scale Navy satisfaction
Attitudes towards navy Health Pearlin stress Parenting coping Homemaker satisfaction Service utilization Areas of concern FACES Hassles and uplifts Marital happiness Dyadic adjustment Family strengths Who does what CES-D scale Social support	Attitudes towards navy Health Pearlin stress Parenting coping Homemaker satisfaction Areas of concern FACES Hassles and uplifts Marital happiness Dyadic adjustment Family strengths Who does what CES-D scale Social support Adjective Check List	Attitudes towards navy Health Pearlin stress Parenting coping Areas of concern FACES Hassles and uplifts Marital happiness CES-D scale Social support Family Coping Invent. Self-efficacy	Attitudes towards navy Health Pearlin stress Parenting coping Service utilization Areas of concern Marital happiness CES-D scale Social support Adjective Check List Family Coping Invent. Self-efficacy Sexual relationship	Health Pearlin stress Service utilization FACES Hassles and uplifts Marital happiness Dyadic adjustment Family strengths Who does what CES-D scale	Attitudes toward the navy Health Pearlin stress Service utilization FACES Hassles and uplifts Marital happiness Dyadic adjustment Family strengths Who does what CES-D scale

BEM INVENTORY

Developed by Sandra L. Bem, Ph.D.

Name _____ Age _____ Sex _____

Phone No. or Address _____

Date _____ 19 ____

If a student: School _____ Yr. in School _____

If not a student: Occupation _____

DIRECTIONS

On the opposite side of this sheet, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale from 1 to 7, how true of you each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never true that you are sly.

Write a 2 if it is usually not true that you are sly.

Write a 3 if it is sometimes but infrequently true that you are sly.

Write a 4 if it is occasionally true that you are sly.

Write a 5 if it is often true that you are sly.

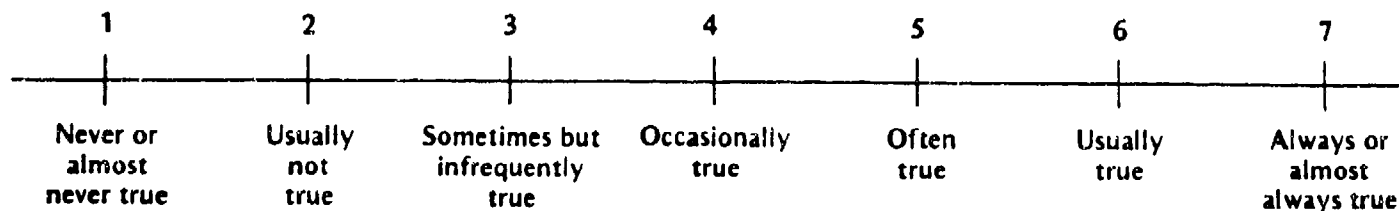
Write a 6 if it is usually true that you are sly.

Write a 7 if it is always or almost always true that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5



Defend my own beliefs	
Affectionate	
Conscientious	
Independent	
Sympathetic	
Moody	
Assertive	
Sensitive to needs of others	
Reliable	
Strong personality	
Understanding	
Jealous	
Forceful	
Compassionate	
Truthful	
Have leadership abilities	
Eager to soothe hurt feelings	
Secretive	
Willing to take risks	
Warm	

Adaptable	
Dominant	
Tender	
Conceited	
Willing to take a stand	
Love children	
Tactful	
Aggressive	
Gentle	
Conventional	
Self-reliant	
Yielding	
Helpful	
Athletic	
Cheerful	
Unsystematic	
Analytical	
Shy	
Inefficient	
Make decisions easily	

Flatterable	
Theatrical	
Self-sufficient	
Loyal	
Happy	
Individualistic	
Soft-spoken	
Unpredictable	
Masculine	
Gullible	
Solemn	
Competitive	
Childlike	
Likable	
Ambitious	
Do not use harsh language	
Sincere	
Act as a leader	
Feminine	
Friendly	

In general how satisfied are you with all aspects of Navy
life (including work, services, etc.)?

5=very satisfied
4=fairly satisfied
3=not sure
2=fairly dissatisfied
1=very dissatisfied

Overall how satisfied are you with your current Navy job?

5=very satisfied
4=somewhat satisfied
3=not sure
2=somewhat dissatisfied
1=very dissatisfied

Do you intend to make the Navy your career?

5=definitely yes
4=probably yes
3=not sure
2=probably not
1=definitely not



A RESEARCH AND TRAINING INSTITUTE FOR THE INTERACTIONAL
STUDY OF THE INDIVIDUAL, THE FAMILY AND THE COMMUNITY

Subject ID No. _____

PRELIMINARY CONTACT CONSENT FORM

Please indicate below whether or not you would be interested in participating in a study of Family Stress and Coping During Deployment. As mentioned in our presentation the study will require participation from both spouses, please discuss your desire to participate with your spouse prior to our first telephone contact. Whether or not you decide to participate will in no way be known to any Navy personnel. Also, your responses on the study questionnaires, should you agree to participate, will be **STRICTLY CONFIDENTIAL**. No navy personnel will have access to the questionnaires. Only your randomly assigned identification number will appear on the questionnaires. The name and address list which it will be necessary to maintain during the two year period of the study, will be stored in a locked file separate from the questionnaires. The list will then be destroyed at the end of that two years. However, the actual questionnaires will be kept for an indeterminate period of time in order that we might use them to compare with other squadrons in future studies. Only bonafide members of the research team will have access to these and all other forms in the study.

----- I am interested in being considered as a subject for this study. It is alright for the research team to contact me for further information.

Print Name _____

Telephone No. _____

(Please indicate the best time of day or evening for you to be reached at this number _____)

SIGNATURE _____

DATE _____

----- I am not interested in being considered as a participant for the study, Family Stress and Coping During Deployment.

MRI

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PARTICIPATION CONSENT FORM

I understand that this is a study of Navy Family Stress and Coping During Deployment. I understand that my participation will involve responding to a series of printed questionnaires and rating scales intended to measure important aspects of family experience before, during and after deployment. I may be asked some questions of a personal nature.

I understand that my participation is entirely voluntary and that I may decide to withdraw from participation in the study at any time.

I understand that my identity and my responses in the study will be held in strictest confidence by the research team and will in no way be communicated to Navy Personnel.

For administrative purposes only, a single record of my name, address and telephone number will be retained for the duration of the study, and will thereafter be destroyed. However, the actual questionnaires will be kept for an indeterminate period of time in order that we might use them to compare with other squadrons in a future study. To insure the highest level of confidentiality all questionnaires gathered will be coded, and will not bear my name. The name and address record, and the coded information packets will be stored in a locked file in the research office at MRI. Only bonafide members of the research team will have access to the records.

Under the above conditions, I agree to participate in the study of Navy Family Stress and Coping During Deployment.

Signature of Participant _____

Date _____